ABSTRACT

A high efficiency stable RF power amplifier with frequency tuning capability is disclosed. The present invention includes a novel circuit configuration which allows the drain or collector terminal of the power transistor to be at ground potential eliminating the need for an electrical insulator between the transistor and the heatsink. In an alternative embodiment, the source or emitter terminal of the power transistor is allowed to be at ground potential. In either case, the amplifier is operated in a switched mode to provide high efficiency amplification at a predetermined frequency band. Additionally, despite the switched mode operation, the amplifier is stable because properly controlled impedances are provided for baseband, sub-harmonic and harmonic frequencies.